

Extremely small dimensions
Versions with special dimensions
can be supplied at short notice

Construction

- Dielectric: polyethylene terephthalate (polyester)
- Stacked-film technology
- Uncoated

Features

- Special dimensions available upon request
- High pulse strength
- Minimum tensile strength of leads >10 N

Typical applications

- Standard applications
- Electronic lamp ballast circuits
- Energy-saving lamps
- Substitute for electrolytics in electronic lamp ballasts (420 Vdc)

Terminals

- Parallel wire leads, tinned
- Also available with $(3,2 \pm 0,3)$ mm lead length upon request
- Taped version of B32560 are also available with lead spacing 5 mm (leads bent from 7,5 spacing to 5 mm)

Marking

Rated capacitance (coded),
 rated dc voltage

Delivery mode

Bulk (untaped)

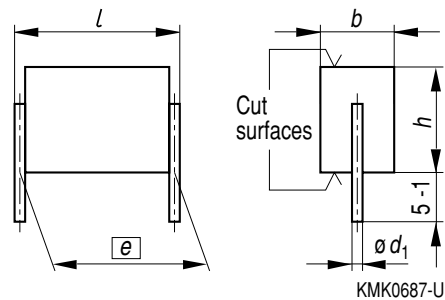
Taped (AMMO pack or reel) for
 lead spacing $\leq 15,0$ mm.

For notes on taping, refer to chapter "Taping and packing", page 274.

Notes on mounting

When mounting these capacitors, take into account creepage distances and clearances to adjacent live parts. The insulating strength of the cut surfaces to other live parts of the circuit is 1,5 times the capacitors rated dc voltage, but is always at least 300 Vdc.

Capacitors with 7,5 mm lead spacing are only suitable for use with single-clad printed circuit boards.



Dimensions in mm

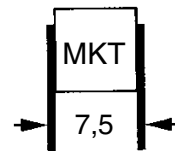
Lead spacing $[e] \pm 0,4$	Diameter d_1	Type
7,5	0,5	B 32 560
10,0	0,5	B 32 561
15,0	0,6	B 32 562
22,5	0,8	B 32 563
27,5	0,8	B 32 564

MKT

B 32 560 ...
B 32 564
Overview of available types

Lead spacing	7,5 mm	10 mm	15 mm	22,5 mm	27,5 mm
Type	B 32 560	B 32 561	B 32 562	B 32 563	B 32 564
Page	43	45	46	47	48
1,0 nF					
1,5 nF					
2,2 nF					
3,3 nF					
4,7 nF					
6,8 nF					
10 nF					
15 nF					
22 nF					
33 nF					
47 nF					
68 nF					
0,10 μ F					
0,15 μ F					
0,22 μ F					
0,33 μ F					
0,47 μ F					
0,68 μ F					
1,0 μ F					
1,5 μ F					
2,2 μ F					
3,3 μ F					
4,7 μ F					
5,6 μ F ¹⁾					
6,8 μ F					
10 μ F					
15 μ F					
22 μ F					
33 μ F					

1) For B 32 564, 420 Vdc only


Ordering codes and packing units, lead spacing 7,5 mm

V_R (V_{rms} , $f \leq 60$ Hz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
63 Vdc (40 Vac)	0,22 μ F	2,5 × 5,2 × 9,0	B32560-J224-+	2)	2)	2500
	0,33 μ F	2,5 × 5,6 × 9,0	B32560-J334-+	2)	2)	2500
	0,47 μ F	2,6 × 5,8 × 9,0	B32560-J474-+***	3250	2600	2000
	0,68 μ F	3,2 × 6,2 × 9,0	B32560-J684-+***	2850	2300	1500
	1,0 μ F	4,0 × 6,8 × 9,0	B32560-J105-+***	2200	1800	1000
	1,5 μ F	5,1 × 7,6 × 9,0	B32560-J155-+***	1700	1400	500
	2,2 μ F	6,5 × 8,2 × 9,0	B32560-J225-+***	1300	1100	500
	3,3 μ F	8,5 × 9,1 × 9,0	B32560-J335-+	–	–	350
	4,7 μ F	9,8 × 11,0 × 9,0	B32560-J475-+	–	–	250
	6,8 μ F	11,5 × 13,3 × 9,0	B32560-J685-+	–	–	150
100 Vdc (63 Vac)	0,10 μ F	2,5 × 4,7 × 9,0	B32560-J1104-+	2)	2)	3000
	0,15 μ F	2,5 × 4,7 × 9,0	B32560-J1154-+	2)	2)	3000
	0,22 μ F	2,5 × 5,1 × 9,0	B32560-J1224-+***	3400	2700	2000
	0,33 μ F	2,7 × 5,7 × 9,0	B32560-J1334-+***	3100	2500	1500
	0,47 μ F	3,4 × 6,1 × 9,0	B32560-J1474-+***	2500	2000	1200
	0,68 μ F	4,2 × 6,5 × 9,0	B32560-J1684-+***	2000	1600	1000
	1,0 μ F	5,5 × 7,0 × 9,0	B32560-J1105-+***	1600	1300	500
	1,5 μ F	6,7 × 8,2 × 9,0	B32560-J1155-+	–	–	400
250 Vdc (160 Vac)	2,2 μ F	8,5 × 9,2 × 9,0	B32560-J1225-+	–	–	300
	33 nF	2,5 × 4,8 × 9,0	B32560-J3333-+	2)	2)	3000
	47 nF	2,5 × 5,2 × 9,0	B32560-J3473-+***	3500	2800	2300
	68 nF	2,6 × 5,7 × 9,0	B32560-J3683-+***	3400	2700	1700
	0,10 μ F	3,2 × 6,1 × 9,0	B32560-J3104-+***	2650	2200	1200
	0,15 μ F	3,9 × 7,0 × 9,0	B32560-J3154-+***	2150	1800	1000
	0,22 μ F	4,9 × 7,5 × 9,0	B32560-J3224-+***	1750	1400	650
0,33 μ F	6,4 × 8,2 × 9,0	B32560-J3334-+	–	–	500	

Capacitance tolerance: $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

Special dimensions available upon request.

For corresponding design rules, refer to chapter “General technical information”, page 290.

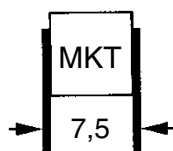
1) + Code letter for capacitance tolerance

*** Code number for packing: Ammo pack = 289, reel = 189

Lead spacing changed from 7,5 to 5 mm by bending leads: Ammo pack = 259, reel = 159

The ordering code for untaped components ends after the tolerance code letter.

2) Taping upon request


B 32 560
Ordering codes and packing units, lead spacing 7,5 mm

V_R (V_{rms} , $f \leq 60$ Hz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
400 Vdc (200 Vac)	1,0 nF	2,5 × 5,5 × 9,0	B32560-J6102-+	2)	2)	2300
	1,5 nF	2,5 × 5,5 × 9,0	B32560-J6152-+***	3500	2900	2000
	2,2 nF	2,5 × 5,5 × 9,0	B32560-J6222-+***	3700	3000	2100
	3,3 nF	2,5 × 5,5 × 9,0	B32560-J6332-+***	3400	2800	2000
	4,7 nF	2,5 × 5,5 × 9,0	B32560-J6472-+***	3700	3000	2000
	6,8 nF	2,5 × 5,5 × 9,0	B32560-J6682-+***	3700	3000	2000
	10 nF	2,5 × 5,5 × 9,0	B32560-J6103-+***	3500	2800	2200
	15 nF	2,5 × 5,5 × 9,0	B32560-J6153-+***	3500	2800	2500
	22 nF	2,5 × 5,5 × 9,0	B32560-J6223-+***	3400	2700	2300
	33 nF	2,6 × 6,0 × 9,0	B32560-J6333-+***	3400	2700	1600
	47 nF	3,2 × 6,5 × 9,0	B32560-J6473-+***	2650	2200	1200
	68 nF	3,8 × 7,3 × 9,0	B32560-J6683-+***	2250	1900	1000
	0,10 μF	4,9 × 7,7 × 9,0	B32560-J6104-+***	1750	1400	500
0,15 μF	6,5 × 8,2 × 9,0	B32560-J6154-+	–	–	500	
630 Vdc (400 Vac)	1,0 nF	2,5 × 5,5 × 9,0	B32560-J8102-+	2)	2)	2300
	1,5 nF	2,5 × 5,5 × 9,0	B32560-J8152-+***	3500	2900	2000
	2,2 nF	2,5 × 5,5 × 9,0	B32560-J8222-+***	3700	3000	2100
	3,3 nF	2,5 × 5,5 × 9,0	B32560-J8332-+***	3400	2800	2000
	4,7 nF	2,5 × 5,5 × 9,0	B32560-J8472-+***	3400	2700	1800
	6,8 nF	3,2 × 6,5 × 9,0	B32560-J8682-+***	2900	2400	1300
	10 nF	3,8 × 7,5 × 9,0	B32560-J8103-+***	2400	2000	1000

Capacitance tolerance: ±20 % ≐ M, ±10 % ≐ K, ±5 % ≐ J

Special dimensions available upon request.

For corresponding design rules, refer to chapter “General technical information”, page 290.

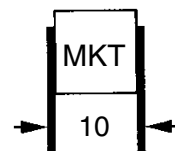
1) + Code letter for capacitance tolerance

*** Code number for packing: Ammo pack = 289, reel = 189

Lead spacing changed from 7,5 to 5 mm by bending leads: Ammo pack = 259, reel = 159

The ordering code for untaped components ends after the tolerance code letter.

2) Taping upon request


Ordering codes and packing units, lead spacing 10 mm

V_R (V_{rms} , $f \leq 60$ Hz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
100 Vdc (63 Vac)	0,33 μ F	2,5 \times 5,2 \times 11,5	B32561-J1334-+****	1750	2400	1600
	0,47 μ F	2,9 \times 5,8 \times 11,5	B32561-J1474-+****	1560	2300	1200
	0,68 μ F	3,6 \times 6,3 \times 11,5	B32561-J1684-+****	1260	2000	1000
	1,0 μ F	4,5 \times 6,9 \times 11,5	B32561-J1105-+****	1050	1500	500
	1,5 μ F	5,6 \times 7,8 \times 11,5	B32561-J1155-+****	810	1200	500
	2,2 μ F	6,9 \times 9,0 \times 11,5	B32561-J1225-+	–	–	400
250 Vdc (160 Vac)	47 nF	2,5 \times 4,4 \times 11,5	B32561-J3473-+	2)	2)	2300
	68 nF	2,5 \times 4,8 \times 11,5	B32561-J3683-+****	1760	2400	1800
	0,10 μ F	2,8 \times 5,3 \times 11,5	B32561-J3104-+****	1600	2300	1300
	0,15 μ F	3,3 \times 6,0 \times 11,5	B32561-J3154-+****	1300	2000	1000
	0,22 μ F	4,2 \times 6,6 \times 11,5	B32561-J3224-+****	1040	1600	700
	0,33 μ F	5,2 \times 7,5 \times 11,5	B32561-J3334-+****	850	1300	500
400 Vdc (200 Vac)	0,47 μ F	6,3 \times 8,5 \times 11,5	B32561-J3474-+****	700	1000	400
	10 nF	2,5 \times 5,1 \times 11,5	B32561-J6103-+****	1760	2400	1700
	15 nF	2,5 \times 5,1 \times 11,5	B32561-J6153-+****	1830	2500	2000
	22 nF	2,5 \times 5,1 \times 11,5	B32561-J6223-+****	1830	2500	2000
	33 nF	2,5 \times 5,1 \times 11,5	B32561-J6333-+****	1760	2400	1700
	47 nF	2,6 \times 6,0 \times 11,5	B32561-J6473-+****	1760	2400	1300
	68 nF	3,2 \times 6,6 \times 11,5	B32561-J6683-+****	1390	2100	1000
	0,10 μ F	4,0 \times 6,9 \times 11,5	B32561-J6104-+****	1090	1700	700
0,15 μ F	5,2 \times 7,7 \times 11,5	B32561-J6154-+****	850	1300	500	
0,22 μ F	6,6 \times 8,5 \times 11,5	B32561-J6224-+	–	–	300	

Capacitance tolerance: $\pm 20\% \hat{=}$ M, $\pm 10\% \hat{=}$ K, $\pm 5\% \hat{=}$ J

Special dimensions available upon request.

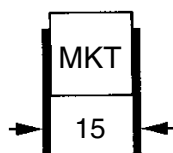
For corresponding design rules, refer to chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance

*** Code number for packing: Ammo pack = 289, reel = 189

The ordering code for untaped components ends after the tolerance code letter.

2) Taping upon request


B 32 562
Ordering codes and packing units, lead spacing 15 mm

V_R (V_{rms} , $f \leq 60$ Hz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs)		
				Ammo pack	Reel	Untaped
100 Vdc (63 Vac)	1,0 μ F	3,2 \times 6,3 \times 16,5	B32562-J1105-+***	1750	2000	1500
	1,5 μ F	4,0 \times 7,3 \times 16,5	B32562-J1155-+***	1460	1500	1000
	2,2 μ F	4,9 \times 8,0 \times 16,5	B32562-J1225-+***	1190	1300	800
	3,3 μ F	6,0 \times 9,3 \times 16,5	B32562-J1335-+***	960	1000	500
	4,7 μ F	7,3 \times 10,6 \times 16,5	B32562-J1475-+***	790	900	400
	6,8 μ F	9,0 \times 11,8 \times 16,5	B32562-J1685-+***	640	700	290
	10 μ F	11,8 \times 13,0 \times 16,5	B32562-J1106-+	–	–	200
250 Vdc (160 Vac)	0,22 μ F	3,2 \times 5,6 \times 16,5	B32562-J3224-+***	1750	2000	1700
	0,33 μ F	4,0 \times 6,2 \times 16,5	B32562-J3334-+***	1460	1500	1200
	0,47 μ F	5,0 \times 6,7 \times 16,5	B32562-J3474-+***	1190	1300	950
	0,68 μ F	6,0 \times 7,8 \times 16,5	B32562-J3684-+***	960	1000	500
	1,0 μ F	7,0 \times 9,3 \times 16,5	B32562-J3105-+***	830	900	500
	1,5 μ F	8,7 \times 11,0 \times 16,5	B32562-J3155-+***	660	700	300
	2,2 μ F	10,7 \times 12,8 \times 16,5	B32562-J3225-+	–	–	200
	3,3 μ F	13,9 \times 14,5 \times 16,5	B32562-J3335-+	–	–	150
400 Vdc (200 Vac)	47 nF	3,3 \times 5,6 \times 16,5	B32562-J6473-+***	1870	2100	1800
	68 nF	3,3 \times 5,6 \times 16,5	B32562-J6683-+***	1800	2000	1800
	0,10 μ F	3,3 \times 5,6 \times 16,5	B32562-J6104-+***	1700	1900	1600
	0,15 μ F	3,9 \times 6,5 \times 16,5	B32562-J6154-+***	1420	1600	1200
	0,22 μ F	4,7 \times 7,5 \times 16,5	B32562-J6224-+***	1240	1300	850
	0,33 μ F	6,0 \times 8,3 \times 16,5	B32562-J6334-+***	960	1000	500
	0,47 μ F	7,3 \times 9,3 \times 16,5	B32562-J6474-+***	790	900	450
	0,68 μ F	8,9 \times 10,8 \times 16,5	B32562-J6684-+***	640	700	300
	1,0 μ F	10,9 \times 12,5 \times 16,5	B32562-J6105-+	–	–	200
630 Vdc (350 Vac)	0,10 μ F	6,2 \times 9,3 \times 16,5	B32562-J8104-+	–	–	700
	0,15 μ F	7,6 \times 10,8 \times 16,5	B32562-J8154-+	–	–	500
	0,22 μ F	9,2 \times 12,2 \times 16,5	B32562-J8224-+	–	–	350
	0,33 μ F	11,2 \times 14,2 \times 16,5	B32562-J8334-+	–	–	250
	0,47 μ F	13,5 \times 16,3 \times 16,5	B32562-J8474-+	–	–	180

 Capacitance tolerance: $\pm 20\% \hat{=} M, \pm 10\% \hat{=} K, \pm 5\% \hat{=} J$

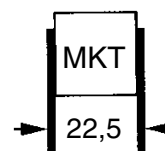
Special dimensions available upon request.

For corresponding design rules, refer to chapter “General technical information”, page 290.

1) + Code letter for capacitance tolerance

*** Code number for packing: Ammo pack = 289, reel = 189

The ordering code for untaped components ends after the tolerance code letter.


Ordering codes and packing units, lead spacing 22,5 mm

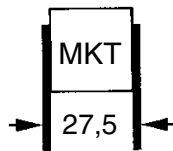
V_R (V_{rms} , $f \leq 60$ Hz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs) Untaped
100 Vdc (63 Vac)	3,3 μ F	5,0 \times 8,2 \times 24,0	B32563-J1335-+	1900
	4,7 μ F	5,9 \times 9,0 \times 24,0	B32563-J1475-+	1600
	6,8 μ F	7,0 \times 10,5 \times 24,0	B32563-J1685-+	920
	10 μ F	8,6 \times 12,2 \times 24,0	B32563-J1106-+	960
	15 μ F	10,9 \times 14,0 \times 24,0	B32563-J1156-+	620
	22 μ F	12,8 \times 17,2 \times 24,0	B32563-J1226-+	360
250 Vdc (160 Vac)	0,68 μ F	4,8 \times 7,2 \times 24,0	B32563-J3684-+	1760
	1,0 μ F	5,6 \times 8,2 \times 24,0	B32563-J3105-+	1140
	1,5 μ F	6,9 \times 9,5 \times 24,0	B32563-J3155-+	920
	2,2 μ F	8,3 \times 11,2 \times 24,0	B32563-J3225-+	740
	3,3 μ F	10,1 \times 13,5 \times 24,0	B32563-J3335-+	700
	4,7 μ F	12,2 \times 15,5 \times 24,0	B32563-J3475-+	390
400 Vdc (200Vac)	0,33 μ F	5,1 \times 8,0 \times 24,0	B32563-J6334-+	1700
	0,47 μ F	5,7 \times 8,3 \times 24,0	B32563-J6474-+	1660
	0,68 μ F	6,9 \times 9,6 \times 24,0	B32563-J6684-+	920
	1,0 μ F	8,3 \times 11,2 \times 24,0	B32563-J6105-+	850
	1,5 μ F	10,3 \times 13,2 \times 24,0	B32563-J6155-+	660
	2,2 μ F	12,6 \times 15,5 \times 24,0	B32563-J6225-+	360

Capacitance tolerance: $\pm 20\% \hat{=} M$, $\pm 10\% \hat{=} K$, $\pm 5\% \hat{=} J$

Special dimensions available upon request.

For corresponding design rules, refer to chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance


B 32 564
Ordering codes and packing units, lead spacing 27,5 mm

V_R (V_{rms} , $f \leq 60$ Hz)	C_R	Maximum dimensions $b \times h \times l$ (mm)	Ordering code ¹⁾	Packing units (pcs) Untaped
100 Vdc (63Vac)	4,7 μ F	5,6 \times 8,3 \times 29,0	B32564-J1475-+	1000
	6,8 μ F	6,3 \times 9,5 \times 29,0	B32564-J1685-+	820
	10 μ F	7,6 \times 11,0 \times 29,0	B32564-J1106-+	680
	15 μ F	9,1 \times 13,5 \times 29,0	B32564-J1156-+	430
	22 μ F	11,0 \times 16,0 \times 29,0	B32564-J1226-+	320
	33 μ F	13,0 \times 19,8 \times 29,0	B32564-J1336-+	360
250 Vdc (160 Vac)	1,0 μ F	5,1 \times 7,6 \times 29,0	B32564-J3105-+	1620
	1,5 μ F	5,3 \times 10,2 \times 29,0	B32564-J3155-+	970
	2,2 μ F	6,4 \times 11,8 \times 29,0	B32564-J3225-+	920
	3,3 μ F	7,9 \times 14,0 \times 29,0	B32564-J3335-+	750
	4,7 μ F	9,6 \times 15,8 \times 29,0	B32564-J3475-+	400
	6,8 μ F	11,9 \times 18,0 \times 29,0	B32564-J3685-+	300
	10 μ F	13,8 \times 22,5 \times 29,0	B32564-J3106-+	280
400 Vdc (200 Vac)	1,0 μ F	6,8 \times 11,2 \times 29,0	B32564-J6105-+	750
	1,5 μ F	7,8 \times 14,2 \times 29,0	B32564-J6155-+	750
	2,2 μ F	9,6 \times 16,4 \times 29,0	B32564-J6225-+	400
	3,3 μ F	12,2 \times 18,8 \times 29,0	B32564-J6335-+	330
	4,7 μ F	14,2 \times 22,8 \times 29,0	B32564-J6475-+	260
420 Vdc (200 Vac)	4,7 μ F	16,0 \times 20,0 \times 29,0	B32564-T6475-K	290
	5,6 μ F	16,0 \times 20,0 \times 29,0	B32564-T6565-K	350
	6,8 μ F	16,0 \times 20,0 \times 29,0	B32564-T6685-K	290

 Capacitance tolerance: $\pm 20\% \hat{=}$ M, $\pm 10\% \hat{=}$ K, $\pm 5\% \hat{=}$ J

Special dimensions available upon request.

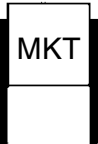
For corresponding design rules, refer to chapter "General technical information", page 290.

1) + Code letter for capacitance tolerance

Technical data

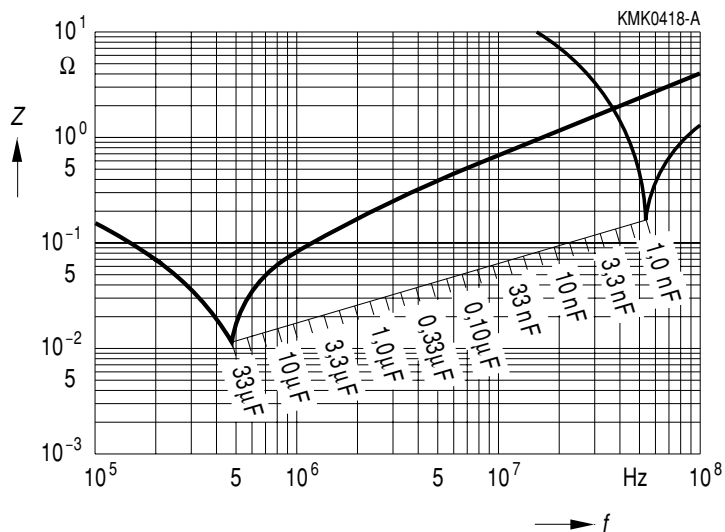
Climatic category in accordance with IEC 60068-1 Lower category temperature T_{\min} Upper category temperature T_{\max} Damp heat test Limit values after damp heat test ¹⁾	55/100/56 ¹⁾ – 55 °C + 100 °C (+ 125 °C for 1000 h and $V_C = 0,5 \cdot V_R$) 56 days/40 °C/93 % relative humidity Capacitance change $ \Delta C/C $ ≤ 5 % Dissipation factor change $\Delta \tan \delta$ ≤ $3 \cdot 10^{-3}$ (at 1 kHz) ≤ $5 \cdot 10^{-3}$ (at 10 kHz) Insulation resistance R_{is} ≥ 50 % of minimum or time constant $\tau = C_R \cdot R_{is}$ as-delivered values			
Reliability: Reference conditions Failure rate Service life Failure criteria: Total failure Failure due to variation of parameters	0,5 · V_R ; 40 °C $2 \cdot 10^{-9}/h = 2$ fit 200 000 h For a conversion table for other operating conditions and temperatures, refer to chapter “Quality assurance”, page 327. Short circuit or open circuit Capacitance change $ \Delta C/C $ > 10 % Dissipation factor $\tan \delta$ > 2 · upper limit value Insulation resistance R_{is} < 150 M Ω ($C_R \leq 0,33 \mu F$) or time constant $\tau = C_R \cdot R_{is}$ < 50 s ($C_R > 0,33 \mu F$)			
DC test voltage	$1,4 \cdot V_R, 2$ s			
Category voltage V_C Operation with dc voltage or ac voltage V_{rms} up to 60 Hz	$T \leq 85$ °C	$V_C = 1,0 \cdot V_R$	$V_{C,rms} = 1,0 \cdot V_{rms}$	
	$T \leq 100$ °C	$V_C = 0,8 \cdot V_R$	$V_{C,rms} = 0,8 \cdot V_{rms}$	
Operating voltage for short operating periods	$T \leq 85$ °C	$V = 1,25 \cdot V_C, \text{max. } 2000$ h	$V = 1,0 \cdot V_{C,rms}, \text{max. } 2000$ h	
	$T \leq 100$ °C	$V = 1,25 \cdot V_C, \text{max. } 2000$ h	$V = 1,0 \cdot V_{C,rms}, \text{max. } 2000$ h	
	$T \leq 125$ °C	$V = 0,5 \cdot V_R, \text{max. } 1000$ h	$V = 0,5 \cdot V_{rms}, \text{max. } 1000$ h	
Dissipation factor $\tan \delta$ (in 10^{-3}) at 20 °C (upper limit values)		$C_R \leq 0,1 \mu F$	$0,1 \mu F < C_R \leq 1 \mu F$	$C_R > 1 \mu F$
	at 1 kHz	8	8	10
	10 kHz	15	15	–
	100 kHz	30	–	–
Insulation resistance R_{is} or time constant $\tau = C_R \cdot R_{is}$ at 20 °C, rel. humidity ≤ 65 % (minimum as-delivered values)	V_R	$C_R \leq 0,33 \mu F$	$C_R > 0,33 \mu F$	
	≤ 100 Vdc	3750 M Ω	1250 s	
	≥ 250 Vdc	7500 M Ω	2500 s	

1) Test criteria must be met after exposure to damp heat for 21 days.



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B 32 564

Impedance Z
 versus
 frequency f
 (typical values)



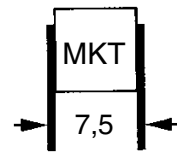
Pulse handling capability

Maximum permissible voltage change per unit of time for non-sinusoidal voltages (pulse, sawtooth).

V_R	Max. rate of voltage rise V_{pp}/τ in $V/\mu s$ (for $V_{pp} = V_R$)				
	Lead spacing				
	7,5 mm	10 mm	15 mm	22,5 mm	27,5 mm
63 Vdc	120	—	—	—	—
100 Vdc	150	75	50	50	25
250 Vdc	200	150	100	100	50
400 Vdc	275	175	125	125	60
420 Vdc	—	—	—	—	60
630 Vdc	320	—	150	—	—

For $V_{pp} < V_R$, the permissible voltage rise rate value V_{pp}/τ may be multiplied by the factor V_R/V_{pp} . Also refer to the calculation example in chapter “General technical information”, page 302.

V_R	Pulse characteristic k_0 in $V^2/\mu s$ (for $V_{pp} \leq V_R$)				
	Lead spacing				
	7,5 mm	10 mm	15 mm	22,5 mm	27,5 mm
63 Vdc	15 000	—	—	—	—
100 Vdc	30 000	15 000	10 000	10 000	5 000
250 Vdc	100 000	75 000	50 000	50 000	25 000
400 Vdc	220 000	140 000	100 000	100 000	50 000
420 Vdc	—	—	—	—	50 000
630 Vdc	400 000	—	190 000	—	—

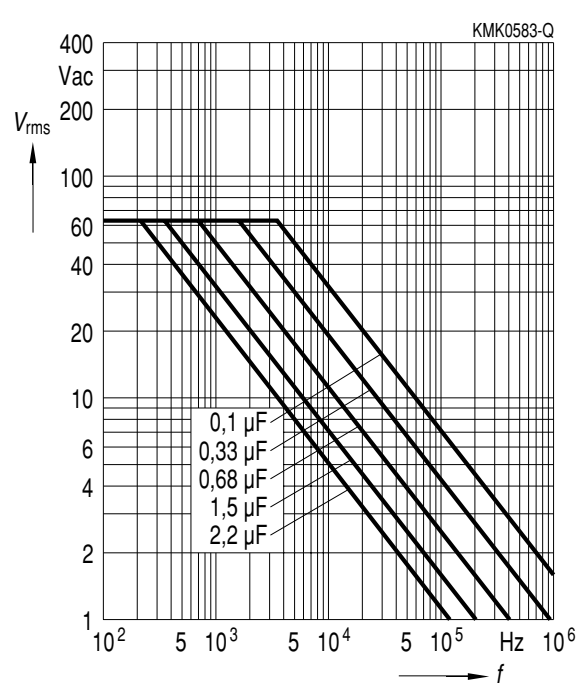
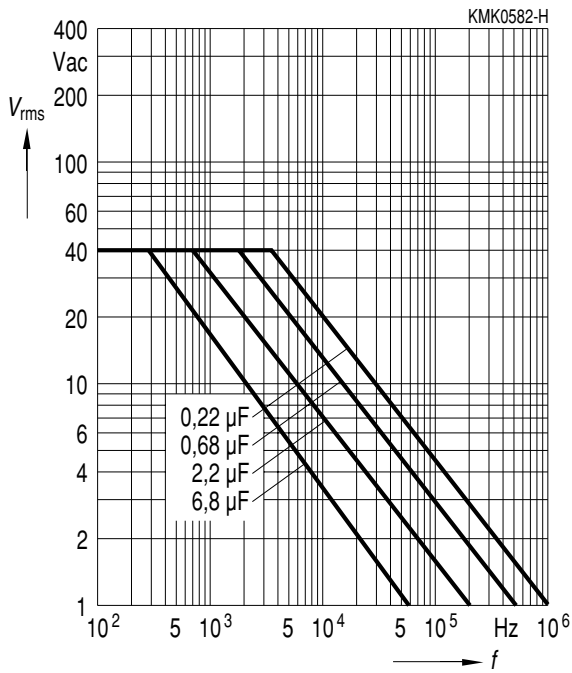


Permissible ac voltage V_{rms} versus frequency f

Lead spacing 7,5 mm

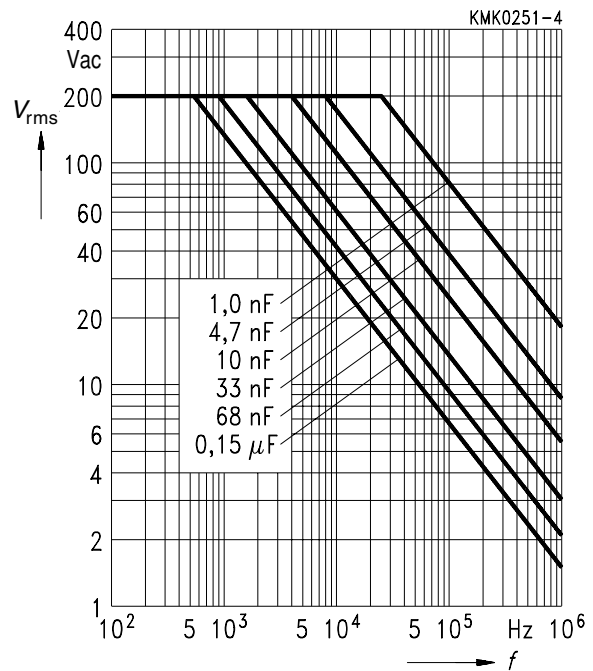
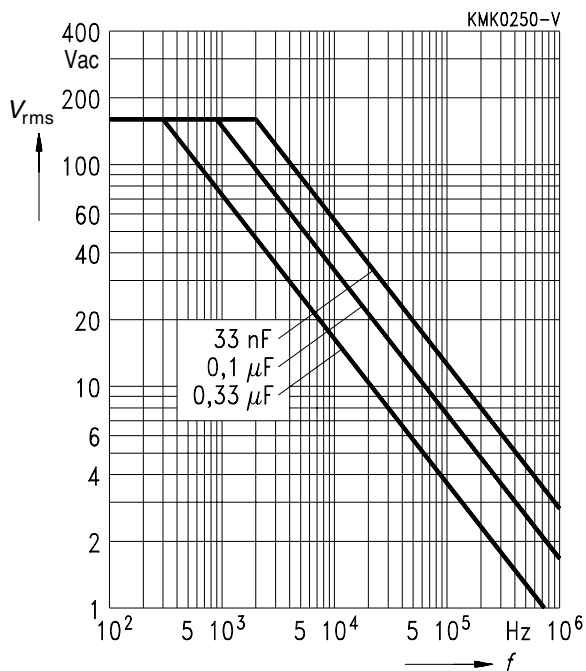
63 Vdc/ 40 Vac

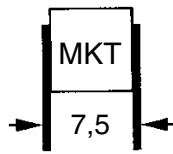
100 Vdc/ 63 Vac



250Vdc/ 160Vac

400 Vdc/ 200 Vac

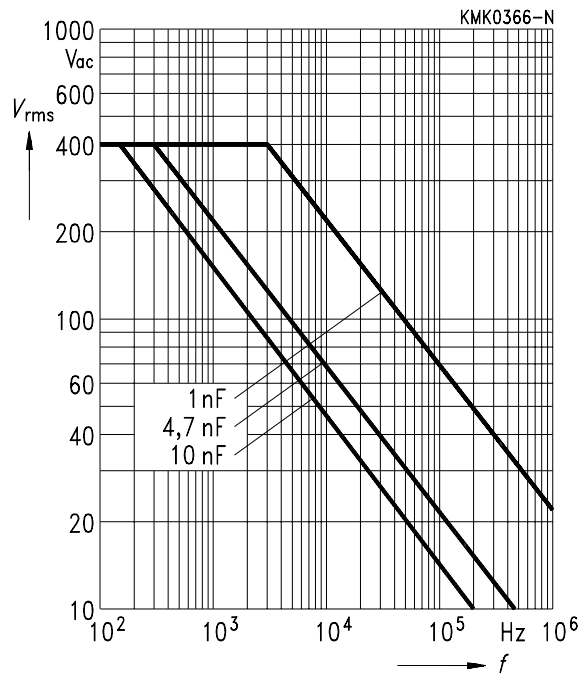


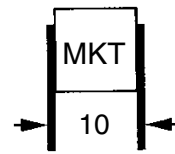


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Permissible ac voltage V_{rms} versus frequency f
Lead spacing 7,5 mm

630 Vdc/ 400 Vac

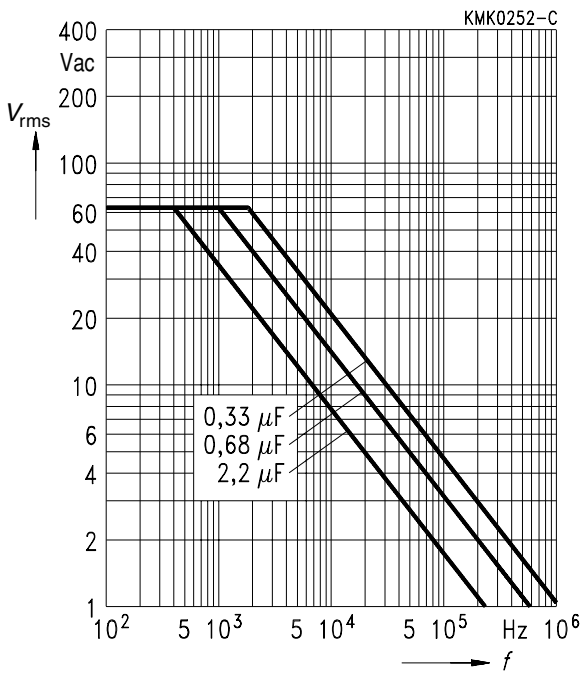




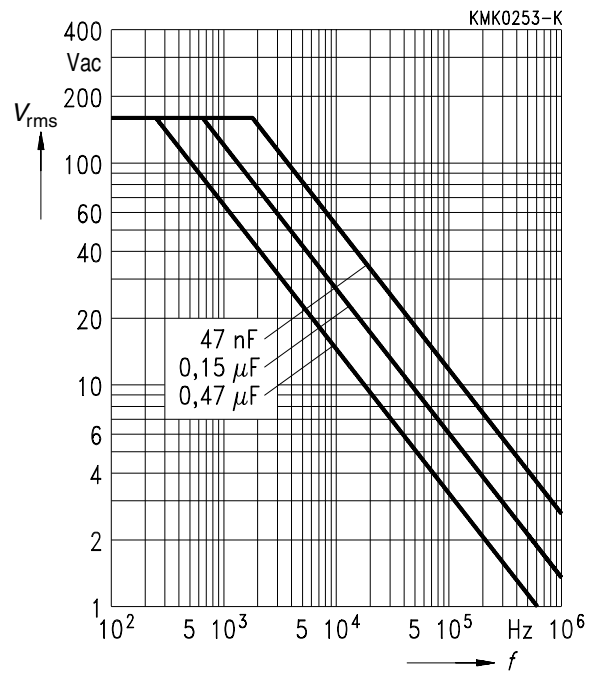
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 10 mm

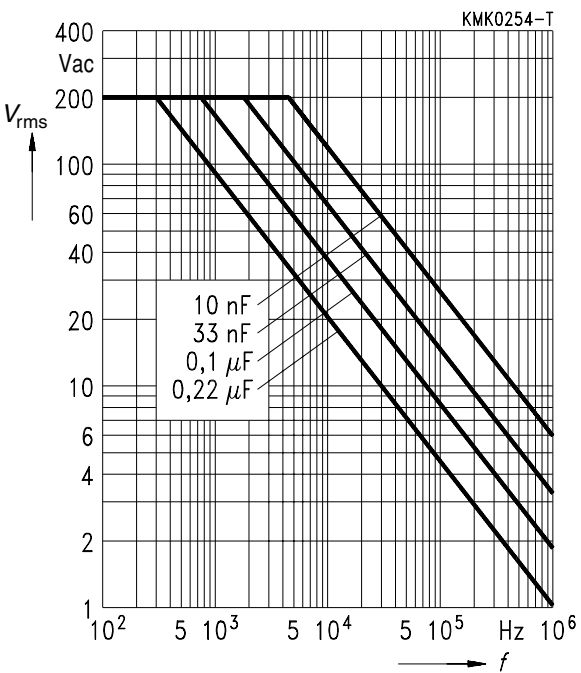
100 Vdc/ 63 Vac

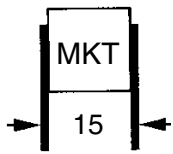


250 Vdc/ 160 Vac



400 Vdc/ 200 Vac



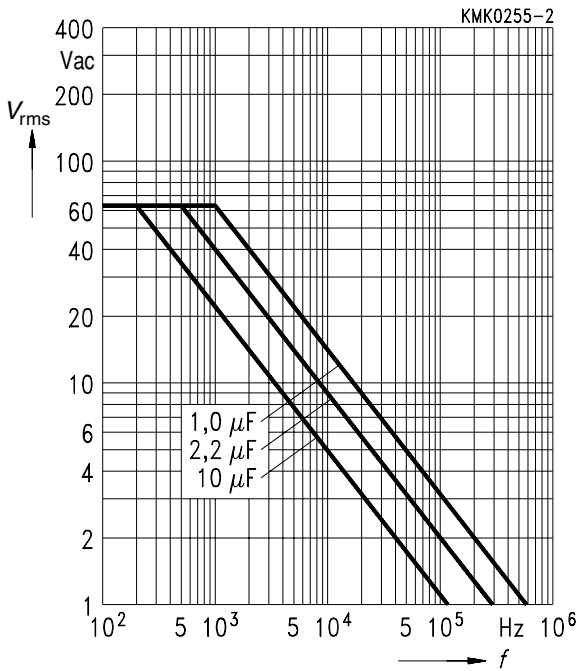


B 32 562

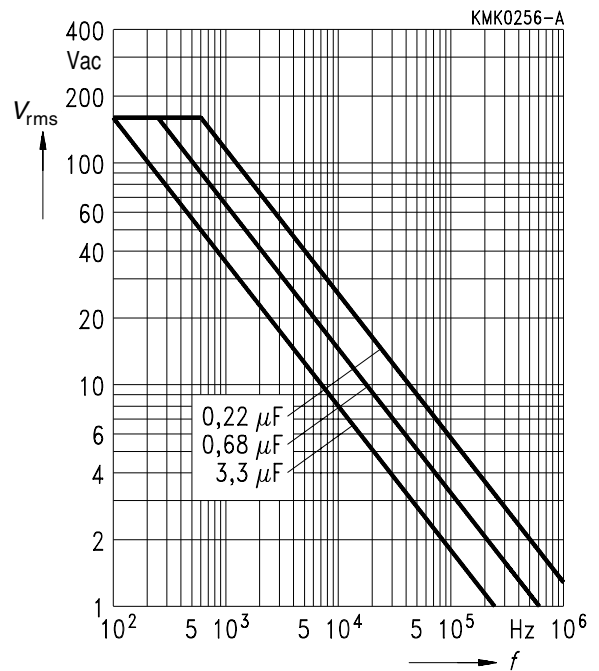
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 15 mm

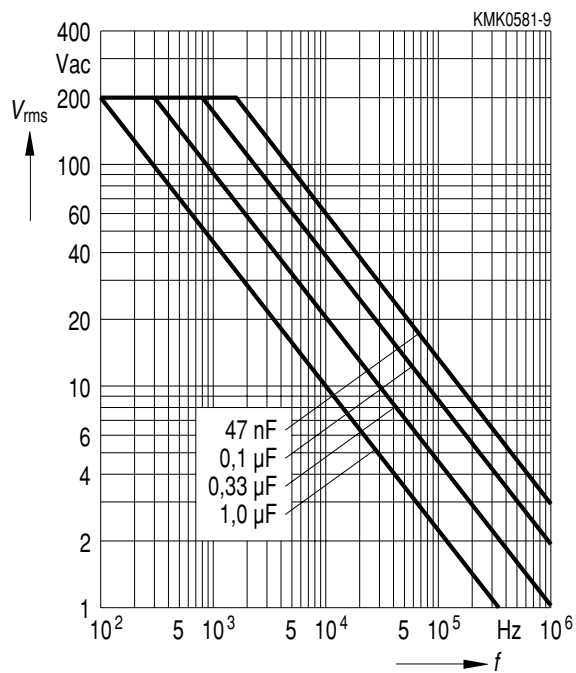
100 Vdc/63 Vac



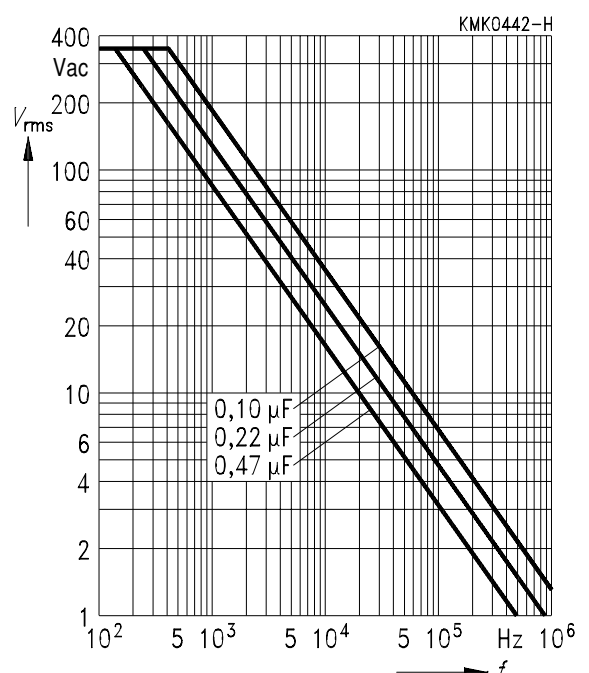
250 Vdc/ 160 Vac

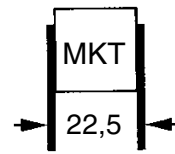


400 Vdc/200 Vac



630 Vdc/350 Vac



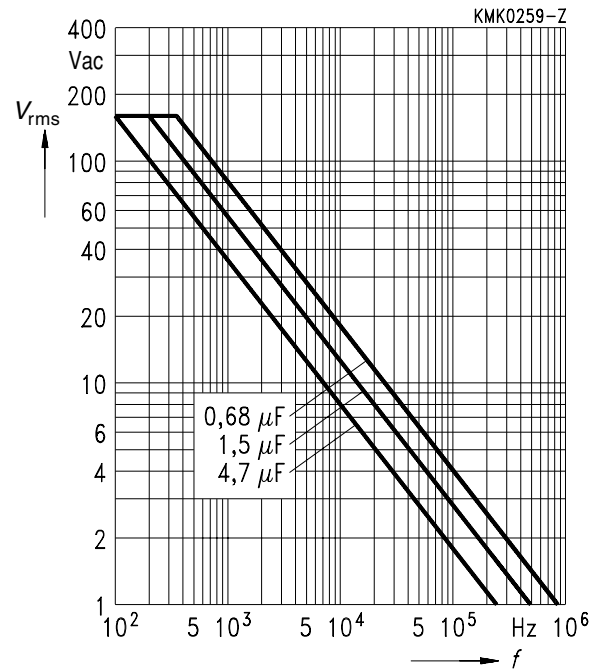
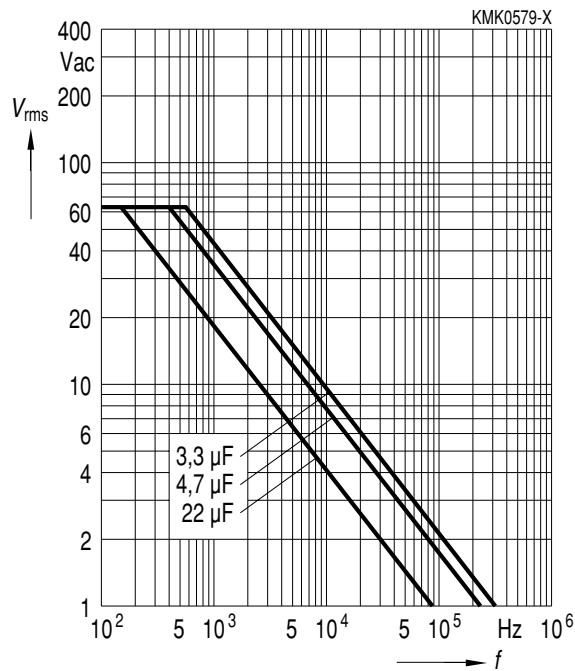


Permissible ac voltage V_{rms} versus frequency f

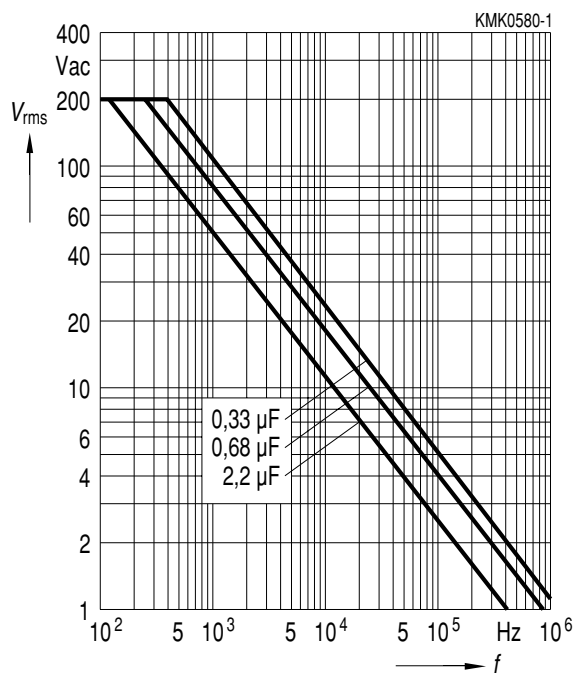
Lead spacing 22,5 mm

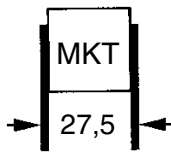
100 Vdc/ 63 Vac

250 Vdc/ 160 Vac



400 Vdc/ 200 Vac



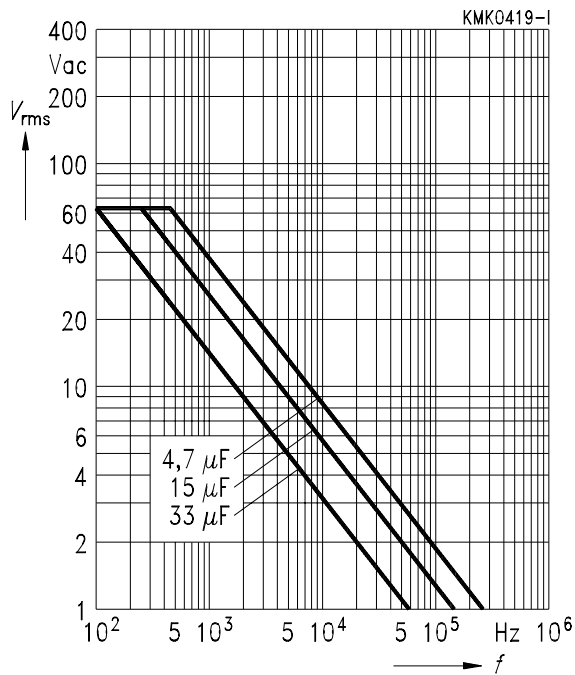


B 32 564

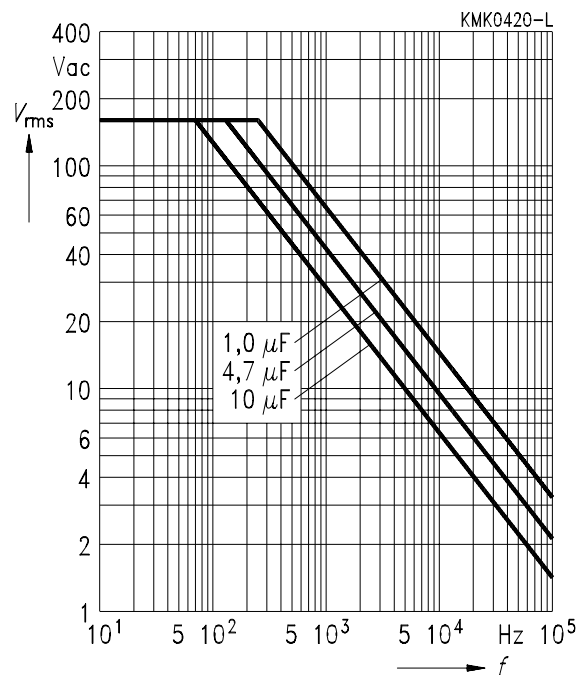
Permissible ac voltage V_{rms} versus frequency f

Lead spacing 27,5 mm

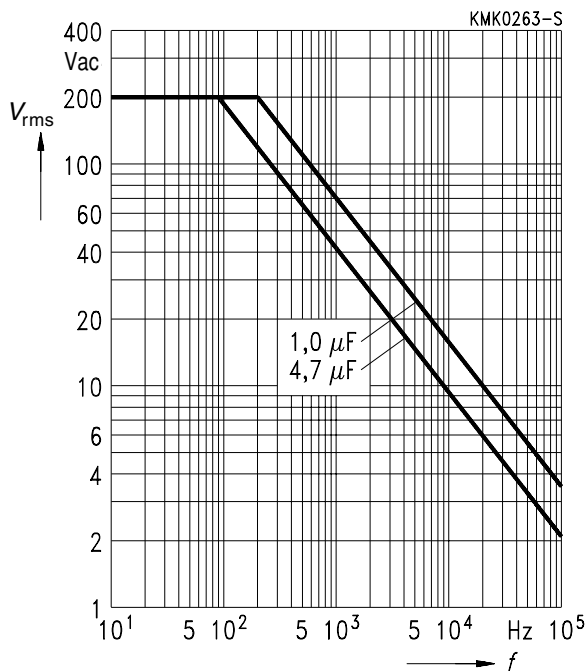
100 Vdc/ 63 Vac



250 Vdc/ 160 Vac



400 Vdc/ 200 Vac



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